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Beyond the Classroom: The Protective Role of Student–Teacher Relationships on Parenting Stress

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Abstract
Caregivers are influential in young children's lives. As most children spend time in care outside of the home, it is critical to examine the interplay between parents and schools and how they influence children's development. The current study examined the spillover of student–teacher relationship quality to the home environment, namely, parenting stress. Student–teacher relationship quality, parenting stress, child negative affect, and parental depressive symptoms were assessed in 112 triads of preschoolers, teachers, and parents. Results suggested student–teacher conflict related to higher parenting stress across all levels of negative affect, when controlling for depressive symptoms, child age, and child gender. For student–teacher closeness, associations depended on child negative affect; for children with high negative affect, increased student–teacher closeness related to lower parenting stress, but for children with low negative affect, there was no association. Findings highlight the protective role of close student–teacher relationships for children and parents and have implications for how teachers and their communication with families may positively impact parents and families.

Keywords Student–teacher relationships · Parenting stress · Parental depression · Home-school communication

Introduction

In early childhood, caregivers play a crucial role in determining how children experience the environment (Flannery et al. 2017). Through responsiveness and sensitivity, caregivers can protect children from the negative consequences of exposure to stress early in life (Flannery et al. 2017). In the United States, fewer than one third of children have one dedicated parent staying home to provide care (Laughlin 2013). Children of employed mothers spend an average of 36 h per week in some type of non-parental care arrangement (Laughlin 2013). Thus, examination of both parents and teachers as caregivers is important in understanding the role of adults on child development. As such, vast literatures exist examining the separate effects of parent–child and teacher–child relationships (Bornstein 2019; Pianta 2017; Sabol and Pianta 2012). In contrast, few studies have examined how relationship quality may transfer from one environment to another. The transfer of adult–child relationship quality from school to home may contribute to parenting stress, which could be particularly influential given its effects on the parent–child relationship and child wellbeing. To our knowledge, no studies have examined this association. The purpose of the current study is to address this gap by examining the relation between preschool student–teacher relationship quality and parenting stress, while accounting for the effects of key individual differences in child temperament and parental depressive symptoms. We provide an overview of research on these constructs, and then use a transactional developmental perspective to illustrate our study hypotheses that teacher–child relationships can and do impact the home environment, specifically, parenting stress.

Student–Teacher Relationships

Research has established that positive, supportive student–teacher relationships are related to a host of positive

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outcomes (academic performance, self-direction, social adjustment, classroom behavior), whereas conflictual or dependent relationships are related to less desirable outcomes (poor academic performance, negative school attitudes, less engagement, school avoidance, and poor social and emotional adjustment) (Hamre and Pianta 2001; Howes 2000; Lippard et al. 2018; Varghese et al. 2019). These relations have been found in both cross-sectional and longitudinal studies, suggesting that early positive relationships have a lasting effect (Hamre and Pianta 2001; Howes 2000; Lippard et al. 2018; Pianta 2017). The quality of student–teacher relationships may be especially important for children at risk for certain negative outcomes. Specifically, a positive, close relationship with a teacher is a protective factor for children at risk for academic problems (Burchinal et al. 2002). Student–teacher relationships characterized by higher levels of closeness and lower levels of conflict and dependency can also ameliorate the trajectory of aggressive behavior over time and the relation between difficult temperament and disruptive play (Griggs et al. 2009; Silver et al. 2005). There is also an emerging field that examines student–teacher relationships and children's physiological stress system activity. These studies show that children who experience securely attached, supportive relationships with teachers show better physiological stress response system activity, than those children with conflictual, dependent relationships (Badanes et al. 2012; Hatfield 2019; Hatfield and Williford 2017; Lisonbee et al. 2008).

Parenting Stress

Parents' wellbeing is important, not only for parents, but for the effect it has on parents' ability to provide supportive and responsive interactions with their children. Specifically, parenting stress has been conceptualized as the negative response associated with the everyday hassles and frustrations surrounding caring for a child, the parent–child relationship, and the role of childrearing (Crnic and Ross 2017). Parenting stress has a negative effect on child functioning, likely because parents who are stressed engage in suboptimal parenting behaviors (Crnic and Low 2002; Pereira et al. 2012). Factors that influence parenting stress include child and parent characteristics (Crnic and Low 2002; Crnic and Ross 2017; Deater-Deckard et al. 2005; Vaughan et al. 2013). For example, parents report higher levels of parenting stress when parenting a child who is reactive and/or negative (Ostberg and Hagekull 2000; Paulussen-Hoogeboom et al. 2008; Williford et al. 2007). Maternal depression is also linked to mother's reports of parenting stress (Farmer and Lee 2011; Malik et al. 2007; Reck et al. 2016). Finally, parents' beliefs about parenting, their children, and their own parenting abilities are often shaped by social factors, and contribute to parenting stress (Crnic and Ross 2017), and thus, when parents get feedback from other adults about challenges with their children, this negative feedback will likely exacerbate their experience of stress.

Child Temperament

An important part of caregiver-child relationship studies is to account for individual differences among children. Child temperament has been used to describe differences in behavior that are in part biologically-based, present early in life, and somewhat consistent across context and time (Bates 1989; De Pauw and Mervielde 2010; Shiner et al. 2012). One dimension of child temperament that has received considerable attention in the parenting literature is negative emotionality/reactivity, or negative affect (Belsky and Jaffee 2006). Children who are more irritable, reactive, and difficult to soothe may place a greater demand on adults in the home and school contexts, reducing adults' ability to cope and increasing their experience of stress. This child disposition could interfere with the development of positive, low conflict relationships with teachers at school (Justice et al. 2008). Models of parenting stress also suggest that difficult child temperament is related to higher levels of parenting stress both concurrently and over time (Ostberg and Hagekull 2000; Rodenburg et al. 2007; Saisto et al. 2008, Williford et al. 2007). Additionally, children's negative behavior tends to be perceived as more extreme or harsh when parents are experiencing more negative life stress or depression compared to those experiencing less life stress or depression (Dalimonte and Brophy 2019; Patterson and Fisher 2002). For parents who may have a tendency to view their children's behaviors as challenging, a positive experience with a child's teacher may give a parent respite or a different point of view, which may help the parent see the child more positively, thus reducing parenting stress.

Theoretical Perspectives: Spillover from School to Home

The transactional model of development helps explain how student–teacher relationship quality could influence levels of parenting stress. The transactional model of development proposes that more important than individuals are the transactions that individuals have with their different contexts (Sameroff 2009). Individuals are seen as plastic, constantly responding to contextual influences and in turn, influencing their own contexts (Sameroff 2009). Although this model often focuses on the child as the individual of focus, adults are an important piece of this transaction. For example, children may evoke similar reactions from parents and teachers, such that more temperamentally difficult children may contribute to both conflictual student–teacher and parent–child relationships, whereas temperamentally

less difficult children may contribute to more positive adult relationships across settings. There is some support showing similarities exist in the bidirectional associations between child reactivity and parent–child relationships and child reactivity and student–teacher relationships (Acar et al. 2017; Pettit and Arsiwalla 2008).

Extending the transactional model beyond the child-directed effects, the transactions between the parent and teacher can be examined. A low-quality student–teacher relationship may lower a parent's sense of efficacy, instill feelings of hopelessness about a child's future, and create a negative relationship between the parent and the teacher and/or school. In this context, parents may feel more stress because of a perceived lack of control over their ability to parent (Crnic and Low 2002; Crnic and Ross 2017). Conversely, just as high-quality student–teacher relationships can function as protective factors for children (Burchinal et al. 2002; Elledge et al. 2016; Griggs et al. 2009; Hamre and Pianta 2001; Schmitt et al. 2018; Silver et al. 2005), perhaps these positive relationships can support parents in feeling more hopeful about children, thus reducing parenting stress. Indeed, more positive student–teacher relationships are associated with more trusting, collaborative, supportive parent-teacher relationships (Chung et al. 2005; Dawson and Wymbs 2016) and lower parent-teacher alliance is related to student–teacher conflict (Thijs and Eilbracht 2012). Additionally, low-income mothers who reported no depressive symptoms during their child's preschool year were more satisfied with their child's teacher than parents who reported some depression or chronic depression (LaForett and Mendez 2010). Together, these findings suggest that there may be a mediated dynamic link between student–teacher relationship quality and parental wellbeing. It may also be that children's relationships with teachers mirror the relationships their parents have with teachers. The importance of focusing on parents in the transactional model is seen by the growth of two generation programs that strive both to provide children with high quality early care and educational experiences as well as providing education and job training for parents, with the end goal of helping families move out of poverty (Chase-Lansdale and Brooks-Gunn 2014). Despite these programs, there are still gaps in understanding the transactions between relationships within the school and between the school and the home. One of these gaps is the link between student–teacher relationships and parenting stress while considering individual differences in child temperament.

The Present Study

The current study aims to address this gap by examining the relation between two dimensions of student–teacher relationship quality and parenting stress, across levels of child temperamental negative affect. Parent depressive symptoms were incorporated into the model as a control variable, given the expected association with parent's experience of parenting stress and child temperament. Understanding this home-school association is important because it may inform the ways in which teachers can communicate with parents effectively about children's difficult behavior to promote stronger home-school connections in early childhood. Data was collected cross-sectionally from preschooler, parents, and teachers in Head Start Centers. This study tests the hypotheses that higher levels of student–teacher conflict and lower levels of student–teacher closeness will be associated with higher levels of parenting stress. Moreover, this study hypothesizes that child negative affect will moderate these relations, such that in the context of higher levels of child negative affect, the relations between student–teacher relationship quality and parenting stress will be stronger.

Methods

Participants

Child Demographics

Participants were 112 children (53.6% female, $M_{age} = 57.63$ months, $SD = 4.34$) and their parents, recruited from 25 3- and 4-year old preschool classrooms at 8 Head Start Centers in a suburban county in the Southeastern United States. Children were ethnically diverse, with the majority being African American (63.4%). The background of the other children represented in this study were Latino (19.6%), African (8.0%), biracial (4.5%), Asian (1.8%), and European American (2.7%), with a small percentage of these children born outside of the U.S. in countries in Africa or Asia (3.6%).

Parent Demographics

The majority of parents (70.0%) were born in the United States, whereas 30.0% were born in another country. Those completing parent measures included biological mothers (92.7%), biological fathers (4.5%), grandmothers (2.7%), and foster mothers (0.9%). In the present study, the term parent is used in reference to all these caregivers to clearly differentiate from teachers. Parents' marital status was 64.0% single, 26.1% married/living together, 9.0% separated or divorced, and 0.9% widowed. The majority of parents reported earning at least a high school degree (26.2% high school diplomas/GED, 23.4% some college, 3.7% vocational training, 10.3% college degree, and 2.8% graduate degree), whereas 3.7% and 29.9% reported completing some middle school or some high school, respectively. In terms of

employment, 50.5% of parents reported being unemployed or looking for work, 18.9% reported being employed full time, 18.0% were employed part-time, 9.9% were not working outside the home, and 2.7% were receiving disability. Mean annual family income adjusted for a family of four was $14,109.60, compared to the 2012 federal poverty threshold of $23,283.00 and the 2013 mean annual income for North Carolina of $25,284.00 (National Center for Children in Poverty 2014; US Census Bureau 2015).

Procedure

Data were collected from October through March over two years (2012–2014) as part of a larger study of contextual family stress, physiology, and student–teacher relationships. Head Start families were chosen to participate due to the higher incidence of contextual family stress and the need to identify factors that may be protective for these families. Teachers recruited from Head Start centers sent home materials to all parents of children in their classrooms. Response rate of parents varied by classroom (range = 1–15). All teacher and parent participants signed consent forms approved by the university IRB. Parents completed interviews by phone, mail, or in person, for which they received a $10 gift card. Teachers completed questionnaires about their teaching background and relationships with students whose parents consented to their participation in the study.

Measures

Demographics

Parents completed a demographic survey including child and adult characteristics and family income. Income per capita was calculated by dividing monthly reported income by the number of people supported by this income.

Student–Teacher Closeness and Conflict

Teachers completed the Student–Teacher Relationship Scale (S-TRS; Pianta 2001), which consists of 28 items about interactions between the student and teacher. These items yield three subscales (closeness, conflict, and dependence) and one total scale. Only the closeness and conflict subscales were used in the present study. The closeness subscale refers to the degree to which the teacher experiences warmth, affection, and open communication with a student. Items on the closeness scale include "I share an affectionate, warm relationship with this child" and "When I praise this child he/she beams with pride." The conflict subscale refers to the degree to which the teacher perceives the relationship with the student as negative or conflictual. Items on the conflict scale include "This child easily becomes angry with me" and "Dealing with this child drains my energy." This measure has high internal consistency for the conflict and closeness subscales and concurrent and predictive validity with respect to academic and behavioral outcomes. Discriminative validity has also been established from other measures of problem behaviors and social competence ($r < 0.58$; Pianta 2001).

Parenting Stress

The Parenting Stress Index—Short Form (PSI-SF; Abidin 1995) is a 36-item parent-completed questionnaire. Evidence to support the validity of the total stress score and individual subscales has been found in previous studies with Head Start families (Reitman et al. 2002; Whiteside-Mansell et al. 2007). The Total stress score ($\alpha = 0.91$) was used in the present study to capture the overall stress the parent experiences related to the role of being a parent.

Negative Affect

Parents completed the Very Short Form of the Children's Behavior Questionnaire (CBQ; Putnam and Rothbart 2006), a shorter version of the standard form of the CBQ. It measures three broad dimensions of temperament (surgency, negative affect, and effortful control) that have been consistently found in factor analyses of the CBQ. The present study uses one of those dimensions—negative affect. Negative affect is associated with high levels of sadness, fear, frustration and discomfort, and low levels of soothability.

Parent Depressive Symptoms

Parent depressive symptoms in the past week was measured via self-report using the Center for Epidemiological Studies—Depression Scale (CES-D; Radloff 1977). Higher scores indicate higher levels of depressive symptoms, with scores at or greater than 15 suggesting clinical levels. This scale has been validated and used with low-income minority populations (sensitivity = 95%; specificity = 70%; $\alpha = 0.80$; LaForett and Mendez 2010; Thomas and Brantley 2004). Reliability for the present sample was also acceptable ($\alpha = 0.84$).

Statistical Analyses

Preliminary analyses were conducted using SPPS v22. Descriptive statistics were examined to ensure assumptions of normality were met. Hierarchical regressions were run examining student–teacher relationship quality, negative affect, and their interaction as they relate to parenting stress, while accounting for child age, gender, and parent depressive symptoms. Parent depressive symptoms was entered as a control variable to isolate the effects of the study variables

Table 1 Descriptive statistics

	N	Min	Max	Mean	SD	Skew (SE)	Kurtosis (SE)
Child age	112	46.00	66.00	57.63	4.34	−0.46 (.23)	−0.71 (.45)
Income per capita	103	0.00	1500.00	293.95	242.74	1.87 (.24)	5.58 (.47)
Negative affect	112	1.58	6.83	4.29	0.97	−0.09 (.23)	0.42 (.45)
S–T closeness	111	26.00	55.00	46.06	6.26	−0.80 (.23)	0.51 (.46)
S–T conflict	111	11.00	40.00	16.46	6.32	1.45 (.23)	1.62 (.46)
Dep Sxs	108	0.00	44.21	12.94	9.85	0.86 (.23)	0.10 (.46)
Parenting stress	109	36.00	122.00	74.91	17.92	0.02 (.23)	−0.38 (.46)

S–T student–teacher, *Dep Sxs* depressive symptoms

Table 2 Correlations among regression variables

	1	2	3	4	5	6	7
1. Child gender	1.00						
2. Child age	−.14	1.00					
3. Negative affect	.11	−.01	1.00				
4. S–T closeness	.29**	−.04	.03	1.00			
5. S–T conflict	−.20*	−.02	.23*	−.38**	1.00		
7. Dep Sx	.20*	−.05	.32**	.07	.14	1.00	
8. Parenting stress	−.02	−.10	.40**	−.19*	.32**	.52**	1.00

S–T student–teacher, *Dep Sxs* depressive symptoms

*$p < .05$, **$p < .01$

given that parent depression can affect reports of negative affect (Patterson and Fisher 2002) and parenting stress (Crnic and Low 2002).

Results

Preliminary analyses (see Table 1) showed that study variables were normally distributed. Pearson correlations (see Table 2) showed significant associations between parenting stress and child negative affect, student–teacher closeness and conflict, and parent depressive symptoms. See Table 2 for additional correlations among study variables.

Hierarchical regression models examining the relation between student–teacher relationship and parenting stress were significant for both student–teacher closeness and student–teacher conflict (see Table 3; $\beta = -0.20$, $p < 0.05$; $\beta = 0.18$, $p < 0.05$, respectively), even while accounting for child age, gender, parent depressive symptoms, and negative affect. When the interactions between negative affect and student–teacher relationship were added to these models, the model examining student–teacher closeness, but not conflict, was significant (see Tables 3 and 4 and Fig. 1). Specifically, student–teacher conflict was associated with increased parenting stress across all levels of child negative affect, when controlling for child age and gender and parent depressive symptoms. Conversely, child negative affect moderated the relation between student–teacher closeness and parenting stress; for children with high negative affect, high student–teacher closeness was associated with lower parenting stress, whereas for children with low negative affect, student–teacher closeness was not associated with parenting stress. Results across models also showed parent depressive symptoms and child negative affect were associated with higher levels of parenting stress.

Table 3 Hierarchical regressions predicting parenting stress with student–teacher closeness

	Step 1 (β)	Step 2(β)	Step 3 (β)	Step 4 (β)
Step 1				
Child age	−0.10	−0.09	−0.09	−0.10
Child gender	−0.15	−0.17*	−0.11	−0.09
Parent depressive symptoms	0.55***	0.47***	0.47***	0.47***
Step 2				
Child negative affect		0.28***	0.27***	1.31**
Step 3				
STRS			−0.20*	.45
Step 4				
STRS × child negative affect				− 1.25*
R^2	.30***			
ΔR^2		.07***	.03*	.03*

STRS student–teacher closeness

N = 112, *p < .05, **p < .01, ***p < .001

Table 4 Hierarchical regressions predicting parenting stress with student–teacher conflict

	Step 1 (β)	Step 2(β)	Step 3 (β)	Step 4 (β)
Step 1				
Child age	−0.10	−0.09	−0.09	−0.08
Child gender	−0.15	−0.17*	−0.12	−0.12
Parent depressive symptoms	0.55***	0.47***	0.45***	0.45***
Step 2				
Child negative affect		0.28***	0.23**	0.02
Step 3				
STRS			0.18*	− 0.19
Step 4				
STRS × child negative affect				0.47
R^2	.30***			
ΔR^2		.07***	.03*	.01

STRS student–teacher conflict

N = 112, *p < .05, **p < .01, ***p < .001

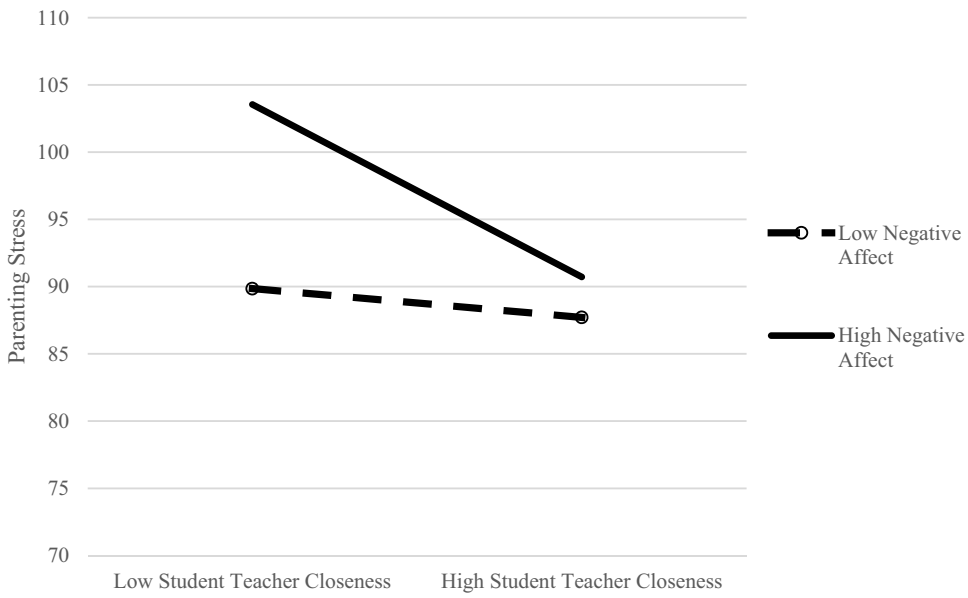

Fig. 1 Graph of the relation between student–teacher closeness and parenting stress moderated by child negative affect

Discussion

Results suggest that the quality of student–teacher relationships transfers from school to home, as measured by parents' experience of parenting stress. Study hypotheses were partially supported. The negative relation between student–teacher closeness and parenting stress depended on child negative affect, whereas the positive relation between student–teacher conflict and parenting stress did not. Student–teacher conflict was positively related to parenting stress regardless of child negative affect.

The present study suggests that for Head Start families, a positive relationship between a preschool-aged student and teacher can be a protective factor for parents, in the context of parenting a reactive, difficult to soothe child. As parents interface with children's teachers in early learning programs, they are given frequent, even daily, feedback about how children are doing both explicitly from teachers' reports (or lack thereof) and inadvertently through observation. When a teacher has a close relationship with a child, the parent is more likely to observe interactions and receive feedback that are more positive. Given the challenges of parenting a temperamentally difficult child and the associated negative expectations of the child (Ostberg and Hagekull 2000; Rodenburg et al. 2007; Saisto et al. 2008; Williford et al. 2007), it may be especially beneficial for parents to receive positive feedback about a temperamentally difficult child. In contrast, when a parent receives neutral or negative feedback about a child, this feedback

could further contribute to the parent's sense of stress and lack of hope about the child's behavior and future development. This may be especially true for parents whose children are enrolled in Head Start programs, given the higher incidence of stress associated with low-income status (Sandstrom and Huerta 2013). For parents of children with "easier" temperaments, a positive student–teacher relationship may be a less critical contributor to parenting stress, as these parents' levels of stress may be lower in general, and perhaps less tied to perceptions of their children. These parents may be less reliant on external sources of feedback about children because they are able to identify positive aspects of their children and/or their relationships with their children.

With respect to teacher–child conflict, parents in this study tended to experience more parenting stress when their children had more conflictual relationships with teachers, regardless of child temperament. Parents whose children have conflictual student–teacher relationships may be more likely to observe difficult interactions in the classroom. These teachers may express frustration and provide more negative feedback to parents. Negative feedback about a child, regardless of the child's temperament, could create a demand on parents and negative feelings about their parenting, contributing to stress. Additionally, children's negative affect separately contributed to parenting stress regardless of student–teacher relationship quality, which is consistent with past research (e.g. Dalimonte and Brophy 2019; Ostberg and Hagekull 2000).

Furthermore, this study shows that, consistent with past research, parental depression plays an important role in the experience of parenting stress (Crnic and Low 2002; Huang et al. 2019; Ostberg and Hagekull 2000). In this study of mostly mothers, depression was accounted for in the main study models to isolate the specific relation between student–teacher relationships on parenting stress. However, its significance shows that parent depression remains an important contributor in understanding parenting stress, including in the context of early learning programs. Indeed, past research shows links between maternal depression and mothers' reports of satisfaction and frequency of interaction with early childhood teachers, with very high rates of depression found in programs serving low-income populations (LaForett and Mendez 2010). Similarly, the vast majority of parents in the present study were mothers from low income backgrounds, again, supporting the need for additional support in working in settings where high rates of depression and parental stress might co-occur.

How can these results inform ways that early learning programs can support families? Early learning programs typically value positive, close student–teacher relationships. Professional development efforts to promote close teacher–child relationship development may have the added benefit of reducing parenting stress. Helping teachers understand how their relationships with children can be transmitted from the classroom to the home environment may motivate teachers to continue to work to promote positive relationships with their students. It may be especially helpful to be cognizant of this spillover in the context of working with a child who is temperamentally reactive and difficult to manage in the classroom.

As literature has shown that parental engagement is a critical aspect of child achievement and adjustment, the ways that parents are invited into the school to engage around their children's development is critical (Walker et al. 2011). Involvement of parents in discussions of their children's behavior, especially discussions of temperament and emotion regulation, can also help parents share their views, which in turn can enhance collaboration across the home and school context (Webster-Stratton et al. 2008). Over time these multiple transactions will potentially influence the child in a more positive fashion as the two systems work together to collaboratively shape child development.

Multiple evidence-based programs focus on ways that teachers can strengthen their positive interactions with young children and their families (e.g. Webster Stratton and Reid 2003; Reinke et al. 2012). Specifically, teachers are trained to focus on building positive relationships with children by identifying and providing positive reinforcement to children's strengths. Teachers are also encouraged to use communication sheets to send parents, which could include updates on areas of children's success and space for parents to write questions and send them back. Prompting teachers to think about children's strengths will help them see positive sides of even their more difficult students and will also model positive reinforcement to parents, while enhancing communication. This might empower an overwhelmed parent to ask a question about their child. Other programs, such as The Companion Curriculum (Mendez 2010), help teachers encourage parent engagement and home-school connections. When teachers give parents tools and activities to support their social, emotional, and pre-academic skills they may enhance a stressed parent's sense of efficacy. Research shows that implementation of such programs lead to improvements in student teacher relationships, as well as teacher-parent relationships (Mendez 2010; Nye et al. 2018). These teacher focused programs may have the added advantage of indirectly benefiting those parents who are most difficult to reach, given that some parents have a hard time accessing programming and involvement opportunities at their children's early learning programs due to a variety of barriers (Mendez and Westerberg 2012). Ultimately, focusing on teachers as a point of entry has the potential to benefit both preschoolers and their parents.

In addition to focusing on improving student teacher and teacher parent relationships, awareness of parent's wellbeing

could help teachers tailor efforts to directly and indirectly support to families most in need. Head Start serves as an excellent example of how an early care and education center can support families at multiple levels with a wraparound model of service (ACF 2019). For example, they suggest screening, staff and teacher training, reflective supervision for staff working with those with mental health needs, connections with community based treatment, and promoting awareness of mental health concerns (ACF 2019). Given the challenges of developing close, working relationships with the hardest to reach families, being aware of the multiple layers of benefit for both children and their parents could be motivating for teachers.

The present study is not without limitations. The sample size was not sufficient to account for the fact that students were nested within classrooms, which could mean that reports of student–teacher relationship were affected by teacher level differences. This bias was reduced by the fact that teachers only reported on one construct and the dependent variable was based on parent report. Future studies should use larger samples to account for potential teacher effects in these relationship studies. Rather than use self-report alone, a mixed methods approach using self -report, as well as observation of student–teacher interactions, could be used to more robustly measure this construct. Additionally, all measures were collected at one time point, thus directionality of these relations cannot be determined.

The present study is an initial look into understanding the spillover of student-teacher relationships and parenting stress. Vast bodies of research exist examining student–teacher relationships and associated child and teacher outcomes, as well as parenting stress and many contributing parent, child, and parent–child dyad factors. However, the present study is one of the few that has scratched the surface in understanding how what happens within early learning programs can affect parents outside of the classroom (see Dawson and Wymbs 2016; Chung et al. 2005; LaForett and Mendez 2010 for exceptions). Further research will need to examine the mechanisms that explain the present findings. For example, findings are interpreted on the basis of messages parents receive from teachers implicitly and explicitly. Studies measuring these messages and their effect are needed to confirm interpretations. Additionally, variables such as parent efficacy and parent–child relationship quality could also be examined to better unpack the present findings.

Overall, the present study provides important information about the relations between student–teacher relationships, parenting stress, and the role of child temperament. These results reinforce the importance of early learning programs prioritizing initiatives that support student–teacher relationships given their benefits for students and teachers, as well as parents. Reductions in parental stress and also potentially linking parents with depression to helpful people and services remain important priorities for children's mental health and emotional well-being. Findings also highlight the need for more extensive research examining the interplay between home and school contexts, and the people within these settings.

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